

[ADDITIONAL.]

MEMBRANIPORA, De Blainville.

Membranipora protecta, n. sp.

Zoecia contracted above, expanded below, disposed rather irregularly in lines, set closely together, front wall wholly membranous, margin smooth; 2 erect spines (sometimes bifid) at the top, below them on each side a single bifid spine, and below these 2 large, branched, antler-like spines, which meet over the aperture; numerous *avicularia* interspersed amongst the cells, placed on a distinct area; beak elongate, slanting upwards, mandible with a triangular base, the upper portion long, slender, setiform. *Oecium* (?).

Loc. Virago Sound, Queen Charlotte Islands (*Dr. G. M. Dawson*).

BIBLIOGRAPHICAL NOTICE.

Manual of British Botany. By CHARLES CARDALE BABINGTON, M.A., F.R.S., F.L.S., &c., Professor of Botany in the University of Cambridge. Eighth Edition. Corrected throughout. London: Van Voorst, 1881.

THE veteran Professor of Botany at Cambridge may certainly be congratulated, not only on the fact that he is alive and well at the seventh revision of his *magnum opus*, which first saw the light thirty-nine years ago, but also that he has, during that period, virtually educated his critics and his public. The achievement of Professor Babington's life has been the removal of the reproach of insularity from British botany. Sir J. E. Smith was unrivalled in his day in his skilful tracing of synonyms in our earlier writers; Sir Joseph Hooker, in our own time, has brought the vast experience of the geographical botanist to gauge the relative value of our British forms; but it is to Professor Babington we owe that minute examination of fresh specimens, and that careful comparison with foreign herbaria and foreign critical writings, that has made the study of our flora a part of continental botany. His 'Manual' has become essentially the companion of working botanists, and its successive editions have most ably reflected the stages of progress made by them between 1843 and 1881.

To the general public it may seem a small matter whether a plant is to bear one of two conflicting names, whether it is to rank as a species or a variety, or whether the name originated with this or with that authority. The theory of evolution does indeed make us attach less importance to the second of these questions; but any one who has attempted original botanical work will have felt the immense advantage of a most precise system of nomenclature. If continental botanists are to know of what plants we may happen to be writing,

or *vice versa*, it is absolutely necessary that synonymy be most carefully studied. It is therefore with extreme regret that we read the note (very true, however, as it is) which the Professor feels compelled to add to his account of our British Rubi and Roses, after his years of study (p. 106), that "when the continental plants are better known it is feared that considerable changes of nomenclature will be necessary."

Though the present writer certainly considers Professor Babington's 'Manual' the most useful from many points of view that we have, yet, bearing in mind the odiousness of comparisons and the author's remark in the preface, that "the portability of this volume is perhaps its most valuable quality," there are points where it comes short of an ideal flora. "Facts relating to geographical distribution are usually omitted," but sometimes inserted in a most tantalizing manner, so that one is inclined to regret the ranges in altitude and in other countries which form so instructive a feature in Sir Joseph Hooker's 'Student's Flora.' We should often also have been glad of more synonyms, and think the name of the recorder of new plants might well be uniformly given as well as the reference to the first publication. Again, the descriptions of a considerable and multifarious number of plants are enclosed in brackets, whilst others are marked by asterisks or other signs; but there seems to be some want of a rigid uniform system upon which these signs are to be employed, as there is also less of exactitude in the principle of exclusion and inclusion than in the works of the late Mr. Watson. For instance, such casuals as *Malva verticillata* and *Staphylea pinnata* are perhaps rightly excluded, whilst *Narcissus lobularis*, *N. incomparabilis*, *Crocus argenteus*, and *Datura Stramonium* are included. It would be useful for field botanists to have all casuals described; but in forming an estimate of our indigenous flora we require more rigid excision. Professor Babington seems to have erred on one side or the other. As a counterpoise to the various additions many would like to see in the 'Manual,' most of those who use the book might well dispense with the Glossary which occupies pp. ix-xxv, and with the table of classes, divisions, and orders, on pp. xxxv-xlv, thus adding twenty-eight pages to the available space.

It will shorten our task of examining the "carefully revised" body of the work to notice the various additions, changes, merits, and oversights in botanical order, *i. e.* as they come; and it may be a question whether in future editions it may not be possible, for the benefit of those who own earlier editions, to indicate the chief alterations in the Preface, as did the late Sir Charles Lyell in the various editions of his 'Principles of Geology.' Many of the points we notice are no doubt trifling, as, for instance, that *Olematis*, though it occurs mostly on calcareous soil, is not absolutely confined to it.

In the difficult genus *Thalictrum* the species *T. saxatile* (Bab.), a well-marked form, is well placed as a smaller form of *T. collinum* (Wallr.), which is itself a variety of *T. majus* (Sm.).

The appearance of the new Guernsey species *Ranunculus triphyllos* (Wallr.) renews one's regret at the necessity British botanists

consider themselves under of including the plants of these essentially French islands in their accounts of our Flora. Professor Babington's excellent method of condensation is shown, however, in his account of the variations of *R. acris*. "The variations *R. vulgatus* (Jord.) and *R. tomophyllus* (Jord.) have been found. *J. of B.* viii. 257, x. 238. The former has usually an oblique or horizontal rhizome, the latter a præmorse rootstock."

The apparently indigenous character of the pæony on the Steep Holmes in the Severn suggests to the geographical botanist the curious problem of our midland flora of isolated rarities, including *Thlaspi perfoliatum*, *Salvia pratensis*, *Euphorbia stricta*, *E. pilosa*, *Cephalanthera rubra*, *Lycopodium complanatum*, and such plants. What is its origin?

One cannot but read with admiration the account of *Nasturtium officinale*, in which *N. microphyllum* and *N. sifolium* of Reichenbach are treated merely as forms of the common watercress, as also that of *Sagina maritima*, where Jordan's species *S. debilis* and *S. densa* are similarly reduced; but after this it is remarkable that none of the variations of *Draba verna* are considered worthy of distinct notice, whilst four forms of so plastic a species as *Stellaria media* are dignified with varietal names.

The present writer (*Journ. Linn. Soc.* vol. xvi. p. 185) traced *Thlaspi perfoliatum* into Wiltshire; and *Polygala calcarea* has been found in more than one locality on the oolite hills of Gloucestershire, there being no chalk in that county. It is a question whether *Helianthemum ledifolium* had not better be altogether omitted from our floras, and also whether *Polygala grandiflora* is not better entitled to specific rank than many that receive it at Professor Babington's hands.

The prostrate variety of *Sagina apetala* now first receives the name *prostrata*: *Malva Alcea* is inserted apparently solely on the ground that it "should be found in England;" and *Lavatera sylvestris*, described by Mr. Trimen (*Journ. of Bot.* xv.) from specimens discovered by Mr. Curnow, appears for the first time.

The genus *Ononis* has been revised, *O. arvensis* (L.) appearing as "stoloniferous . . . pods . . . falling short of the calyx . . . α . glandular, fl.-l. equalling or surpassing cal., pod shorter than calyx. — β . *maritima*; glandular-villose, fl.-l. falling short of cal., pod as long or longer than calyx," and *O. campestris* (Koch) as "not stoloniferous . . . pods . . . exceeding the calyx."

Medicago lappacea, Lamk., recorded from Bedfordshire by the late Mr. Pryor (*Journ. of Bot.* xiv. 22) should have been inserted on page 84.

The lilac-purple variety of *Trifolium repens* appears as *T. Townsendii*, and *Lathyrus sphericus* (Retz.), recorded by Mr. Pryor (*Journ. of Bot.* xii. p. 205) from Hertfordshire, also appears; but *L. hirsutus* should be recorded for Kent as well as for Essex and Surrey.

Among the Brambles, *Rubus Leesii* is reduced to the position of a variety of *R. Idæus*; *R. fusco-ater*, var. *Briggsii*, appears as *R. emersistylus* (Müll.); *R. pygmaeus* (Bab. not Weihe) becomes *R. præruptorum* (Boul.); and *R. hemistemon* (Müll.), *R. discolor* β .

pubigerus, *R. hirtifolius* (Müll.), *R. Kœhleri* δ . *cavatifolius* (Müll.), *R. mutabilis* (Genev.), and *R. foliosus* β . *adornatus* (Müll.) appear for the first time, *R. mutabilis* and *R. hirtifolius* being due to Mr. T. A. Briggs's 'Flora of Plymouth.'

Rosa bibracteata (Bast.) replaces *R. stylosa* of the last edition.

Whatever they may be as living trees, it is very doubtful whether Dr. Boswell-Syme's four species of *Pyrus* can, in the herbarium, be looked upon as any thing but variations of *P. Aria*.

The appearance of a second species of the American genus *Claytonia*, *C. alsinoides*, as naturalized with us, is one more of the few instances of eastern, as opposed to the abundant western, migration of weeds, which suggest some important problems (*vide* Claypole, Pharmaceut. Journ. 1879).

Do *Saxifraga granulata* and *S. tridactylites* frequent sloping ground to such an extent as to call for the word "banks" in the habitat? and, considering its occurrence in Somerset, Hants, and Hertfordshire, is it explicit to speak of *Parnassia* as occurring "towards the north"?

The variety of *Apium nodiflorum* with roundish ovate leaflets and very short peduncles (E. B. 1431) now appears as *ocreatum*; and that of *Artemisia vulgaris* with dense racemes as β . *A. coarctata* (Forcell.).

Senecio spathulifolius (DC.) is an addition, the Holyhead plant having before been grouped under *S. campestris*. *Crepis hieracioides* (W. & K.) replaces *C. succisæfolia*; and *Hieracium pratense* (Fr.) replaces *H. dubium*, L. (Fr. of the last edition), and *H. collinum*. *H. Dewari* (Sy.) is new, as also is *Campanula rotundifolia*, var. γ . *arctica* (Lange), described by Mr. A. G. More under the varietal name *speciosa*, from Inish Boffin, in the 'Journal of Botany' for 1876 (p. 373).

Is there not a specimen of *Fraxinus heterophyllus* (Vahl) in Christ-Church meadows, Oxford, represented by specimens from Professor Dyer in the British Museum, in which all the leaves are simple? They are here described as "simple and pinnate," and an initial *E.* has dropped in by mistake.

Two important additions, due to Mr. Townsend, appear under the genus *Erythraea*, viz.:—*E. tenuiflora* (Link), recorded in the 'Journal of Botany' for 1879 (p. 329), which Professor Babington ranks as a variety of *E. pulchella*, whilst Mr. Townsend suggested it might be a hybrid of that species with *E. Centaurium*; and *E. capitata* (W.), var. *sphærocephala*, Townsend, in the case of which the author has disregarded the discoverer's varietal name, besides omitting his Newhaven locality, thus treating it as Willdenow's type, which it is not.

The genus *Euphrasia* so well displays the author's judicious spirit of revision that we cannot refrain from quoting his account of the varieties *in extenso*.

" α ; glandular-pubescent above and on the calyx, caps. oblong-obovate, seeds ovoid greyish. L. usually large and broad, sometimes densely imbricate (*E. ericetorum*, Jord. ?).— β . *E. nemorosa* (Pers.) pubescent not glandular, caps. linear-oblong, seeds fusiform yel-

lowish. L. usually narrow, sometimes (*E. Salisburgensis*, Funk.?) with very long teeth.—Some authors divide this into many species; but even the above are scarcely distinguishable at all times.”

This important opinion should be taken in connexion with Hermann Müller's interesting researches on fertilization and latitude-variation, as it is probable that this species affords some remarkably puzzling instances of correlated change.

An examination of specimens has led the present writer to look upon *Veronica spicata*, L. (E. B. 2), from the chalk of Cambridge-shire and Suffolk, as very distinct from *V. hybrida*, L. (E. B. 673), of the carboniferous limestone in the West of England; but Professor Babington continues to unite them. Cultivation might settle the question.

Utricularia Bremii of Heer, the authority for the name not being cited, which was recorded by Mr. Webb in the ‘Journal of Botany’ for 1876 (p. 146); *Plantago intermedia* (Lilib.) put under *P. major*; the varietal name *salina* for the maritime form of *Atriplex deltoidea*; and *Rumex rupestris*, Le Gall, recorded by Mr. Briggs in 1875, are additions.

From personal investigation the present writer can fully indorse all that Professor Babington says of the Elms, though he would have liked to see the variety *nitida* of Syme included. Dr. Boswell-Syme's *Salix Sadleri* of 1875 is an addition; but, of course, the name *Orchis incarnata* (L.) appears in connexion with the plant to which Mr. C. B. Clarke has, since the publication of this edition, shown that it does not belong.

Epipactis violacea (Bor.) takes the place of *E. media* var. *purpurata*; *Romulea*, Mar., that of *Trichonema*, and *Crocus argenteus* (Sal.) that of *C. biflorus* (Müll.). Whilst on these changes of nomenclature, we must protest against the supersession of such a name as *Liparis*, on the ground of preoccupation in the animal kingdom. Zoologists find a far laxer rule without serious disadvantages.

Potamogeton Zizii, Mert. & Koch, discovered by Mr. Brotherston in 1878, and described by Mr. Trimen, here appears as of “Roth.”

The genus *Zannichellia* has been revised, being now grouped under two species, *Z. palustris* and *Z. polycarpa*, the former being subdivided into three varieties, *brachistemon* and *macrostemon* of Gay and *pedicellata* of Fries.

Three new Sedges, viz. *Carex ornithopoda* (W.), *C. pilulifera*, L., var. *Leesii* (Ridley), and *C. frigida* (All.); *Agrostis alba*, var. β . *stolonifera*, in lieu of *subrepens*; *Nitella prolifera* (Kütz.), and six new Charas, *C. stelligera* (Bauer), *C. contraria* (A. Br.), *C. polycantha* (Braun), *C. baltica* (Fr.), *C. connivens* (Braun), and *C. fragifera* (Dur.), the working out of which is mainly due to the acumen of the Messrs. Groves, complete the list of additions.

These few notes will be sufficient to show both the progress made in British botany since the publication of the last edition and the remarkable manner in which Professor Babington has digested it for our use. May the advance in the future be yet greater, and may he long live to record it!